THE MARINE RECORD

DEVOTED TO COMMERCE, ENGINEERING AND SCIENCE.

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Det. Bel Isle & Windsor Ferry Co 2

AROUND THE LAKES.

CLEVELAND.

The tug Star was inspected Tuesday.

The M. F. Merrick and M. E. Tremble went on Smith's drydock for repairs.

There were no charters for ore reported at this port, Wednesday.

The new steamer City of Cleveland was struck by a barge while going out of the river Saturday night.

The tug O. J. True, which was condemned in this city last fall, has been put in shape again. She was inspected Tuesday.

The barges George W. Bessel, Knight Templar, and Florence M. Dickenson, which have been waiting at this port for several days for their tug, the Justice Field, got away last evening for Toledo, where, in connection with the barge Magnet, they load coal for Milwaukee at 60c.

The schooner David Vance, Captain Vance, arrived on the 19th. She was leaking and was using one steam pump. On the way down she got out of the channel in the Lime Kiln crossing, and struck rocks that had not been dredged out. Her cargo was taken out and she went into dry dock.

On Thursday, July 1st, at 10 o'clock a. m. at the U. S. district court clerk's office, post-office building, there will be offered for sale by Charles H. Bill, as trustee, under the order of the U. S. district court, the tug Peter Smith and all the remains and remnants thereof, now lying at this harbor. The terms of the sale will be cash.

The steam yacht Cyclone has been chartered by Captain J. M. Mitchell to run excursions between Cheltenham Beach and Chicago. Cheltenham Beach is a new pleasure resort, and is about eight miles from Chicago. The Cyclone will run in connection with another steamer which has not yet been decided upon, and will make their Chicago landing at the foot of Van Buren street. Captain Lohmeyer will go along to Chicago with the Cyclone.

DETROIT.

Special to the Marine Record.

June 22. The past week has been all that could be wished for by lake men, by which I, of course, have reference to those who do business upon the waters. Lumber has almost daily passed here in large quantities, some tows having from three to four million feet.

There are four steamers employed in the timber trade, having each four barges in consort from Lake Ontario, owned and managed by Calvin & Company, of Garden Island, who have for many years been engaged in the traffic. These vessels have been more than usually active thus far this season, and there is not a week that their passing may not be noted. On reaching Kingston the timber is discharged and converted into rafts, for Quebec, thence by timber carriers to Liverpool, its final destination. The cost of timber at the point of shipment is estimated to be worth $200 per 1,000 cubic feet; the freightage to Kingston $70 per 1,000 feet, and to Quebec $50 per 1,000 feet, so that on its arrival at Liverpool the valuation has increased to $500 more than at the place of shipment. The stave trade between the lakes and the old country, up to a few years past, was largely carried on, and as already noted it was shipped directly through by lake vessels. Latterly, however, for some unaccountable reason, the traffic has comparatively ceased and no more is heard of it.

The Hon. Eugene Smith, of St. Clair, who for many years was engaged extensively in the shipping and ownership of vessels, was in this city on Friday, and Abram Smith, Esq., of Algonac, who has caused to be built and owned numerous craft, paid a visit here on Saturday.

James P. Donaldson, the late ship chandler, whose death was noticed in last week's RECORD, left behind a family of eight children, one of whom, William P., has grown to manhood and is possessed of good business qualifications. The business will therefore continue right along as heretofore.

The propeller India, Captain Mooney, of the Lake Superior Transit line, which passed down on Saturday, reported the steamer Raleigh ashore above the Sault, with two consorts alongside. It was thought she would be got off without damage.

Moffat & McVenn, the shipbrokers, have made numerous charters the past week, chiefly in coarse freights.

Southeast Bend, on the St. Clair river, which has gained considerable notoriety for various casulties for the week past, presented the usual list Friday night; none, however, of a serious character and need no special notice.

The schooner Kate Kelley, coal laden, arrived here on Friday in a demoralized condition, the result of a heavy squall the night previous below Bar Point, Lake Erie. Her foremast head was carried away, also fore and main top masts and jibboom, which will entail a loss of not far from $500.

The tug Niagara, having in tow six of the Merrick & Esseltyn fleet of vessels, made fast time from Marquette to Detroit, each vessel being laden with ore aggregating 3600 tons, and making the trip in three days and eighteen hours.

Strong westerly winds during the latter part of the week delayed the progress of the upward bound fleet in Lake Erie from two to three days.

The body of a man, supposed to be the person who suicided from the steamer City of Mackinac some weeks since, was found near Colchester on Thursday last, though no definite description has been received.

The steambarge Michigan, formerly of the N. T. Company line, now thirty-four years in service, called here the other day for supplies, looking fairly well. Such is vessel longevity.

The ferry boat Essex, which in her day was the par excellence plying between Detroit and Windsor, lies sunk in St. Clair river, and it may be added her usefulness has passed away.

The wreckers at work on the schooner Thomas P. Sheldon in Sault river, are reported as making fair progress. The railroad iron has been removed from her decks and the divers are engaged in getting the cargo out of the hold.

Captains Harbottle and St. John, government inspectors from Toronto, have arrived at Windsor, for the purpose of inspecting the steambarges C. N. Pratt and Ada E. Allen. The Pratt has just been rebuilt from damages by fire a year or two since, and is now owned by new parties.

The schooner Ganges has just received a new mainmast, and left Saturday for Toledo, in tow of Mills' tug Hercules.

The schooner Venus, early on Saturday morning, stranded on Bois Blanc island and was released by the tug Folger; damages unknown.

The schooner Kitty Kelley will have her repairs made at the Detroit drydock as soon as discharged.

The steambarge Raleigh, noted above as ashore near the Sault, has been released, uninjured.

The passage through the new locks on Sunday was unprecedented, causing more than ordinary detention.

The steamers of both Lake Superior lines arrived down with large cargoes, chiefly flour, copper, and pig iron.

The up freights have, up to the present, been somewhat limited, with merchandise and supplies.

The time of the northerly and easterly winds having expired with the usual ninety days, westerly and southwest winds are in the ascendency, affording vessels upward bound, in the river, an opportunity of sailing through without the aid of a tug. Yet it is somewhat remarkable how few there are who take advantage of such opportunities. It is not necessary to go far back to a period when charts were limited, yet every captain could sail the rivers and keep clear of reef or shoals. Now, however, if the attempt is made they very often strand or get ashore, incidents which are almost daily recorded, and a tug is required to get safely through.

Thirty-nine years ago this month the schooner Merchant, trading on Lake Superior, foundered with all on board, fourteen persons, including passengers. Captain Robert Brown was in command.

The schooner Dauntless, laden with cord wood, owned by Captain Stark, of this city, met with disaster in Georgian Bay at Lion's Head, and arrived in the river, water-logged.

The steamer City of Alpena, Captain A. Stewart, on her recent passage from Mackinac, reported continual fogs at the head of Lake Huron.

J. C. Goss, the sail maker, has at present on hand a full force of men, and orders are continually coming in. At present he is preparing suits of sails for two vessels at Bay City, and also the schooner E. A. Nicholson, with five new sails; the steamer Greyhound, canvas for her decks, and the new steamer City of Cleveland canvas to be placed over her carpets.

Captain Blanchard has chartered the steamer Justice Field and her six consorts to freight coal from Toledo to Milwaukee at 50 cents per ton.

The steamer Don M. Dickisnon and consorts, also owned by Captain Blanchard, are freighting lumber from Traverse City to Detroit at $2 50 per thousand.

Captain John Robertson, at present in command of the steamer Darius Cole, has been a mariner from his early youth, and he wears well. His first command was the steamer Detroit in 1852; in 1853 the Pacific, part of the season, when he was promoted to the steamer London; 1854 the Cleveland; 1855 the Forester for two successive seasons, 1857 the Clifton, between Detroit and Port Huron; 1858 the Forester again, on the Grand Haven and Milwaukee route; 1859 60 Forest Queen and the Marine City four seasons. In the latter part of 1862 he took the propeller City of Detroit to New York city by the St. Lawrence; 1863 64 steamer Illinois on the Lake Superior route; then the Forester two more seasons; also, steamers Montgomery, Milton D. Ward, Meteor, Dove, City of Duluth, Metropolis, Alpena, John Sherman, and Riverside; in all sixteen side-wheel and four screw steamers, and is yet in middle life. Being satisfied with a plain diet he bids fair to stay late. During the entire period of his sailing he has met with no accident through any fault of his own, a record of which any sailor may be proud. His home is at Marine City, where he has a very highly esteemed family.

Just now the weather is somewhat threatening, and it may be more so when this issue takes its rounds. HALL.

BUFFALO.

The canal boat Prefontaine, loaded at Buffalo with corn, is reported sunk at the 16 locks, near Troy.

The propeller Huron City and consorts Planet and M. I. Wilcox got away with their railroad iron for Duluth at 5 p. m. on Sunday.

The lighthouse supply boat Haze returned from Lake Ontario Saturday.

The propeller Australasia brought her consort Alverson all the way from Chicago with only one bucket on her wheel. She broke it while at Chicago and at once telegraphed for a new one here. It is ready for her and will be put on at the Union drydock. The two vessels will load coal for Lake Superior.

Canal freights were fairly active and firm at 3¼ cents on wheat, 3 cents on corn and flaxseed, and 2⅞ cents on oats to New York.

The Tacoma arrived from Chicago, having as a portion of her cargo about 900 tons of package freight. This is the first lot of merchandise brought here from that port by the Lehigh Valley line.

The Nipigon and consorts, Middlesex, Melbourne, and Eureka, light, from Ogdensburg, arrived to load coal for Milwaukee. The Nipigon was docked for examination of her stern bearings and the Middlesex to get her bottom calked.

Coal freights were steady Tuesday at 70 cents to Chicago and Milwaukee. After the heavy chartering of Monday, shippers will be well supplied with tonnage for a couple of days to come. All of the vessels offered, however, found willing takers. Charters comprised the J. H. Devereux, for Chicago; D. Ballentine and consort Northwest, Barnum, J. H. Prentice and consorts Shawnee and Goshawk, for Milwaukee, The Russia takes a part load to Green Bay at 70 cents, and the Tacoma and R. A. Packer will load owners' coal for Chicago.

The propeller Nebraska got two wheels and the Australasia is to get one. The propeller Cuba has been chartered to make three or four trips with flour from Duluth to Sarnia, and her consort, the Donaldson, will be towed by some other steamer in the meantime.

BAY CITY.

Special to the Marine Record.

The barge Star of the North, that was recently badly shaken up on Saginaw Bay, is now being thoroughly rebuilt by her owner at Saginaw, at an expense of nearly three thousand dollars.

The steambarge A. A. Turner was in the Bay City drydock for a calking on Wednesday.

The monster log boat of Capt. Jas. Davison has received her finishing touches and will leave about Thursday for Georgian Bay in tow of the tug Temple Emery.

The new "Allington" band sawmill in F. W. Wheeler's shipyard, West Bay City, has proven itself to be an A1 machine in every respect, doing all kinds of work with perfect satisfaction to Mr. Wheeler, Mr. Allington and its builders, A. F. Bartlett & Co., of Saginaw.

The barge Emen, lumber laden from this port to Chicago, had her foresail and jib blown away on Wednesday last on Saginaw Bay. She got into Tawas and at last accounts was waiting for a tow.

Capt. John Sharpsten has been appointed master of the steamer J. C. Liken that is to ply between Bay Port and Heisterman Island during the season.

The steamers Arundel and Metropolis carry large numbers of excursionists on nearly every trip.

The officers of the steamer Lucille have been supplied with a neat blue uniform with brass buttons which is very becoming, especially to Messrs. English and Mohor, her owners.

A number of barges are lying ordinary in at Saginaw, among which may be mentioned the barges Mariner, Saginaw, S. A. Irish and others.

Engineer Joseph Illingsworth has been engaged to run the mammoth hoisting machinery on Capt. Davison's log boat.

In trying the machinery of the log boat on Monday afternoon, when the first log was taken hold of and a strain put on the rigging a part of the fastenings above gave way and came down with a crash. Fortunately no one was near and no harm was done except to make an indenture in the deck.

The barge The. Perry received a thorough recalking at Whittams'. SHAW.

MARITIME LAW.

COLLISION—CROSSING COURSES — SPECIAL CIRCUMSTANCES JUSTIFY A DEPARTURE FROM THE ORDINARY RULE—FAULTY EXECUTION OF MANEUVER—HALF DAMAGES.

District Court, E. D. Wisconsin. April, 1886.

The schooner E., while sailing with the wind nearly aft, sighted the schooner A. The latter vessel was, at the time, close-hauled on the starboard tack. The vessels were sailing on crossing courses; the red light of the E. bearing five points on the A.'s starboard bow, and the green light of the A. bearing four points on the E.'s port bow. The distance between the vessels was from one-eighth to one-fourth of a mile. A thick fog prevailed, shutting in the lights of both. In this emergency the E. instead of passing astern of the A., luffed. The A, instead of holding her course, put her helm up. In executing the maneuver the E. did not luff sufficiently to materially deaden her headway, and the A., instead of gaining distance by a slight change of helm, made an extended circuit. When each vessel attempted to regain the course upon which she had been sailing, prior to the execution of the maneuver, they met again in closer proximity, but in positions otherwise corresponding almost precisely with those in which they originally stood. Held, that the closeness of the vessels when first seen was a special circumstance which justified in a departure from the ordinary rule of the road, but that as both vessels were in fault in the execution of the maneuver, and as the collision resulted therefrom, the damages should be divided.

In Admiralty.

M. C. Krause for libelants.

Van Dyke & Van Dyke for claimant.

Dyer, J. This is a libel *in rem* to recover damages for injuries to the schooner Ebenezer, caused by a collision with the schooner Anderson. The collision occured about 10:30 p. m., June 14, 1879, on Lake Michigan, about 15 miles off Port Washington. The night was dark, and there was a heavy fog which prevented a view of objects except at a short distance. The wind was a moderate breeze from the south. The Ebenezer, bound from Milwaukee to Washington Harbor, was heading N. by E. ½ E., and, with all sails set, was sailing light directly before the wind, at a speed of about five miles an hour. The Anderson, bound from Elk Rapids to Chicago, was sailing close hauled on the starboard tack, laden with a cargo of pig iron, and heading S. E. by E. Her speed was about four miles an hour. The lights of both vessels were in their proper places, and burning. The red light on the Ebenezer was first seen on the Anderson when about a quarter of a mile distant, and bearing about S. by E. ½ E., or about five points on her weather bow. The Anderson's green light was first seen on the Ebenezer when the vessels were about one-eighth of a mile apart, bearing about four points on her lee bow. On the Anderson it was the master's watch composed of three persons,—the master as officer of the deck, one seamen as lookout stationed on the forecastle, and another at the wheel. On the Ebenezer it was also the master's watch, composed of two persons,—the master at the wheel and one seaman forward. The Anderson carried a master, mate, and four seamen. The Ebenezer carried a master, mate, two seamen, and a passenger. The lookout on each vessel sounded the fog horn according to the regulations, but on neither vessel was the horn of the other heard.

The courses of the two vessels crossed, and when the crew of each knew of the proximity of the other they were very close. As the Ebenezer had the wind free, and as the Anderson was close hauled on the starboard tack, it was the duty of the Ebenezer to give way. The general rule applicable to the situation required the Ebenezer to change her helm so as to go off to the starboard side of the Anderson, passing her astern, and for the Anderson to keep her course. But as the vessels were so close when the lights of each were first seen, I am satisfied the Ebenezer could not have performed that maneuver with safety, and, in obeying the rules, "due regard must be had to all dangers of navigation, and to any special circumstances which may exist in any particular case rendering a departure from them necessary in order to avoid immediate danger."

The testimony shows that when the green light of the Anderson was sighted, the vessels, as near as could then be determined, being about one-eights of a mile apart, and rapidly meeting, the master of the Ebenezer put her wheel hard down. The men below were called up, and the main sheet was hauled aft. This brought the vessel up in the wind, heading about east. At the same time the wheel of the Anderson was put up, her mizzen sheet was slacked off, and the vessel ran before the wind. This movement brought her on a north-easterly course. Thus, both vessels tried to keep out of the way of the other, and, as we shall presently see, the movement of each tended to baffle the other. The mate of the Ebenezer says when he arrived on deck from below he saw the stern of the Anderson as she was passing off on a north-east course before the wind. The lookout on the Anderson says that as the vessel changed her course from S. E. by E. to N. E. or N. E. by E., he saw the broadside of the Ebenezer, which placed that vessel on an easterly course, or, perhaps, a little south of east. Thus the vessels were situated when, after a few moments, the master of the Anderson, undoubtedly supposing he had sailed far enough out of his original course to again resume that course without danger of collision, ordered the wheel of that vessel put down and the mizzen sheet hauled aft. This brought her back on her starboard tack, and in a moment or two, as she gained headway, she found the Ebenezer again directly in her path, with a collision then unavoidable, and she struck the Ebenezer directly amidships, bow on.

With these facts before us, it is not difficult to see what were the causes of the collision. Indeed, it is plain that both vessels were in fault. Since the vessels were too close to enable the Ebenezer to jibe and go astern of the Anderson when they first sighted each other, the movement by which it was sought to put her up in the wind was a proper one. As there were only two men on deck, and as those below had to be called up, there was some delay when every moment was precious in hauling the main and fore sails aft, so as to successfully bring the vessel up to the wind; and I am satisfied she was never, during the affair, brought as high up in the wind as she would head. After being hauled round she stood on an easterly course. This conclusion accords with the weight of the testimony, and with the circumstance, and with the diagrams furnished by both parties. One or two of the witnesses think she may have been brought round so as to be heading E. S. E., but the circumstances strongly indicate that she stood more to eastward. Even if her course was E. S. E. she was within six points of the wind, and she would head five points to the wind. This is testimony of the mate. After she was brought about, and her speed thereby slackened, she would soon drop off, her canvas would fill, and she would move ahead, and this is precisely what the libelant Saveland, who was on board, says she did. As she took an easterly course, therefore, she was going ahead, so that when the Anderson, after her first maneuver to avoid the collision, resumed her original course, both vessels, although at some distance from their first point of proximity, met again in positions corresponding almost precisely with those in which they originally stood to each other, and thus the collision was brought about. It is evident that when the Anderson changed her course, and went off with the wind to the north-east, and the Ebenezer also changed her course, and went to the eastward, they were going upon almost parallel courses, so that when each attempted to regain her original course there was as much danger of a collision as in the outset.

This, I am convinced, is the true story of this collision, and it seems plain that it might have been averted if the Ebenezer had kept up nearer to the wind, so that her movement ahead would have been more effectually arrested, and if the Anderson, instead of making a circuit towards the north-east, had kept her course, varying from it perhaps a point or two to the northward, as the necessity of the case might require. It took time for her to change her course and go off with the wind, and then to come back on her course again, and this proved to be just enough time to bring the Ebenezer, as she went off to the eastward, directly in position where the two vessels must meet. Thus the movement of each tended to baffle the other, whereas, if the Ebenezer had gone as high up in the wind as she could be placed, her speed would have been more effectually slackened, and the Anderson, by keeping her course, being under full speed, would have passed by. This, it seems clear, could have been accomplished, even if the master of the Anderson had deemed it necessary to deflect from her course one or two points.

It seems to me a plain case of fault in both vessels, and therefore one in which the damages must be divided. Decree accordingly.

The Richelieu & Ontario Navigation Company have taken an action to recover $15,000, being the amount of notes given by the Owen Sound Navigation Company in payment for rental of boats. These boats belonged to the Toronto, Grey & Bruce railway, and are now in possession of the Canadian Pacific Railway Company. The action is taken against the C. P. R.

OFFICIAL NUMBERS AND SIGNAL LETTERS.

TREASURY DEPARTMENT, BUREAU OF NAVIGATION, WASHINGTON, June 8, 1886

To the Editor of the Marine Record:

Following is a list of merchant vessels of the United States to which official numbers and signal letters were assigned by the Bureau of Navigation, Treasury Department, during the week ended June 12, 1886:

Official Number.	Signal Letters.	Rig.	Name of Vessel.	Tonnage. Gross.	Net.	Home Port.
			SAIL VESSELS.			
106,418	K D J W	Sc. y.	Avalon,	40 80	38 76	Philadelphia, Pa.
126,352	.....	Sc.	Charles Stewart,	9.61	9.13	Galveston, Tex.
126,353	K D L C	Sc.	Charles T. Tuttle,	.....	737 58	New Haven, Conn.
120 640	K D J V	Sc.	Fortuna,	145 26	138 00	San Francisco, Cal.
			STEAM VESSELS.			
106,419	.....	St. s.	Addie Richardson,	12 43	8 24	Monmouth Beach, N. J.
140,826	.....	St. p.	Little Joe,	.....	32.52	Little Rock, Ark.
130,352	.....	St. p.	Novelty,	63.14	49.95	Cincinnati, O.
150 372	K D L B	St. y.	Puzzle,	54.53	36.28	New York, N. Y.
110.700	.....	St. y.	Robert H. King,	2 40	1.20	Oswego, N. Y.
116 103	.....	St. s.	Silver Star,	75.50	42.95	Bangor, Me.
116,104	.....	St. s.	Spokane,	1.741.90	1.465 48	Cleveland, O.
161.554	.....	St s.	Vigilant,	73.07	36 54	Boston, Mass.
			UNRIGG'D VESSELS.			
29 965	.....	C. bt	Andrew Grant,	104 88	99.64	Fort Ann, N. Y.
56.563	.....	Bge.	Rubicon,	626.88	626 88	Cincinnati, O.

JARVIS PATTEN, Commissioner of Navigation.

LITERARY NOTICES.

THE ATLANTIC MONTHLY.—No article in the July number of the Atlantic will attract more attention than the Autocrat's engaging description of his first visit to Europe, more than fifty years ago. Dr. Holmes has written nothing for a long time more charming in quality or more thoroughly characteristic. Philip Gilbert Hamerton gives the first paper of his series, "French and English." George Frederic Parsons's vigorous, clearly reasoned and sensible paper on "The Labor Question" is a timely contribution. John Fiske has another noteworthy article relating to the time of confusion and almost bankruptcy succeeding the Revolutionary war. "The Princess Casamassima," by Mr. James, grows absorbingly interesting. There are installments of Craddock's "In the Clouds" and Bishop's "The Golden Justice," and a good short story, "Sibyl the Savage," by Mrs. Champney. There are, of course, some excellent literary articles, the most noticeable being Miss Preston's admirable paper on "Ouida." The Contributors' Club and Books of the Month opens the fifty-eighth volume of the magazine. Houghton, Mifflin & Co., Boston.

HARPER'S MAGAZINE.—The July number of Harper's Magazine is in every way a remarkable number. It opens with a brilliant installment of Mr. Warner's delightful summer serial "Their Pilgrimage," made still more delightful by Mr. C. S. Reinhart's illustrations. In Dr. Richard Wheatly's paper on the New York Produce Exchange, we have one of those strong, concise, yet comprehensive, articles which are a characteristic feature of Harper's Magazine. "She Stoops to Conquer," with the exception of the Epilogue, which will appear in the August number, is concluded, with three full-page illustrations by Edwin A. Abbey. For the most part the illustrated articles take us out of doors. This is notably the case with Warner's story; Blackmore's charming novel, "Springhaven;" Mr. William Hamilton Gibson's "Singing Wings;" and Mr. Henry P. Wells's "Salmon Fishing." Mrs. Olive Thorne Miller's curious sketch, "A Night-monkey in the House," illustrated by J. C. Beard, is an in-door study, but a remarkable chapter in Natural History. The "glorious Fourth" is fitly commemorated in Mr. Ballard Smith's paper, "The Gunpowder for Bunker Hill," effectively illustrated by Howard Pyle. The frontispiece is an entirely new portrait of Nathaniel Hawthorne. Dr. Richard T. Ely begins a series of "Social Studies," and E. P. Roe contributes the fifth of his series of papers, "The Home Acre." "Bonne Maman" is a very novel and striking short story by Grace King, a new Southern writer of great promise. A clever short story, entitled "Dirt Pies," is contributed by the author of "Gemini." Mr. George William Curtis, in the Easy Chair, discusses John Gilbert's characterization of Hardcastle in "She Stoops to Conquer," literary and artistic criticism, and the pressure of "the majority." Mr. Howell's Study this month is especially devoted to current dramatic literature. Mr. Charles Dudley Warner introduces a very entertaining Drawer, with a humorous dissertation on the relation of Government to low-neck dresses.

THE VESSEL OWNER.

"The longer I am connected with this blooming business the more I grow dissatisfied with it," said the vessel owner surlily. "There's a large class of men connected with it who have made fortunes in the days gone by, and now because their floating property does not pay from 50 to 100 per cent they are the most unhappy mortals on the face of the earth. Why, I was talking with one of those men the other day and he assured me that a vessel ought to earn at least 20 per cent in order to leave a margin for the owner. Now, think of that, 20 per cent. It has been reduced to a fact that the wear and tear on a vessel amounts to about 6 per cent of her value during a season. If that owner could figure up 20 per cent on his investment he could count upon a clear gain of 14 per cent. Maybe there isn't some capital in this country which is making 14 per cent investments. I might say that there's a lot of it around which can be secured handily enough at 4 and 5 per cent. I have come to the conclusion that it will require a new generation of vessel owners to fully appreciate the money-making merits of the business. The men who control it now live in the past. A fair return for a fair investment is not their motto. When they think of it memories of war days, 25 cent freights and fabulous profits rise before them and shut out all else from their vision. Big fortunes were made in those days, and there are a good many men about the lakes now who can look back to them and squeeze large sized bank rolls as a result of them. There is one thing that I want to say in this connection. There are more self made men among the rich vessel owners than among almost any other class of men in the country. There's Captains Eagan, Magill, Higgie, Dunham, Kieth, Harry Channon, Perew, Bradley, Minch, Rogers, Pridgeon, Grummond, Davidson, Goodrich, Moffat, and a hundred others who began as lads on the breakers of early days. They rose as rapidly as their abilities permitted, and now they stand at the head of the business. There are a great many whose opportunities were as fair and as numerous, but for some unaccountable reason they failed to 'get there,' as the expression goes. —*Inter Ocean.*

Complaint is often made respecting the excessive amount paid for "stevedoring," and I believe not without reason. At all events, it always appears to be a paying business, however "depressed" freights may be. At Greenock, the ship owners have succeeded in considerably reducing their outlay on this item by forming a Stevedoring Company, and, while nine years ago it cost them 1s. 2d. per ton to discharge sugar from Java, Mauritius, now it costs only 5d. per ton. This result has been partially arrived at by using steam power; the workmen's wages not having been reduced, continuing to be at the rate of 7d. and 8d. per hour during the day, and 10½d. to 1s. per hour at night. Not only has the company been enabled to reduce the charge for stevedoring, but they also succeeded in doing so on sound commercial principles, paying a dividend of 5 per cent, and without monopolizing all the trade, as 192 vessels out of 399 entering the port of Greenock were discharged outside the company.—*London Nautical Magazine.*

THE ST. LAWRENCE.

The St. Lawrence constitutes one of the most important features in the hydrography of the New World, on account of the great chain of lakes with which it is connected and of which it is the outlet. These lakes—Superior, Huron, Michigan, Erie and Ontario—have together, an area of more than 90,000 square miles which exceeds that of the island of Great Britian. The river St. Lawrence, which issues from the lower extremity of Lake Ontario, carries their superfluous waters to the sea, and becomes in the latter part of its channel a vast estuary, which gradually increases from 25 to 100 miles in breadth.

The great lakes of the St. Lawrence basin indicate a descent in the general level of its waters which is very gradual until Lake Erie—the lower but one of their number—is passed. Thence to Lake Ontario the descent is very considerable. The surface of Lake Superior is 596 feet above the level of the sea. Lakes Michigan and Huron are only eighteen feet lower in level, and the surface of Lake Erie corresponds to a further depression of not more than thirteen feet. But between the surface of Lakes Erie and Ontario the difference of level amounts to more than three hundred feet and the river Niagara, which connects them, is precipitated midway between the two lakes down the ledge of rock which forms the well known falls of that name. From the lower extremity of Lake Ontario to the city of Quebec, (where the broader part of its estuary begins,) the declivity in the channel of the St. Lawrence is very considerable, —amounting to an average of eight inches per mile, and the numerous rocks which occur in its bed give rise to frequent and dangerous rapids. At the city of Montreal, where the Victoria railroad bridge crosses the St. Lawrence, the river is 6,540 feet (or a mile and a quarter) in width, and flows at the rate of ten miles an hour. During several months of each year it is covered with a coating of ice eight feet thick, and when this breaks up, enormous blocks of ice are carried down the stream with almost restless force. The Ottawa, which joins the St. Lawrence on its left bank above Montreal, is the most considerable of its tributaries, and exhibits like characteristics. The channels both of the St. Lawrence and the Ottawa open out, at intervals, into broad and lake like expanses, studded with a multitude of islets, of every variety of form, and covered with a rich luxuriance of vegetable growth which constitute the far-famed "Thousand Islands."

The waters of northern Minnesota are about four months in reaching the ocean and in that time are precipitated a total distance of 650 to 700 feet.

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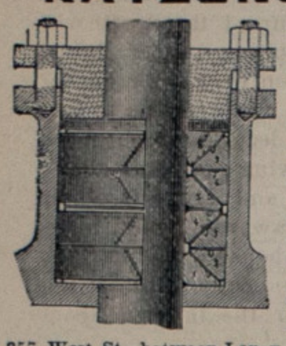

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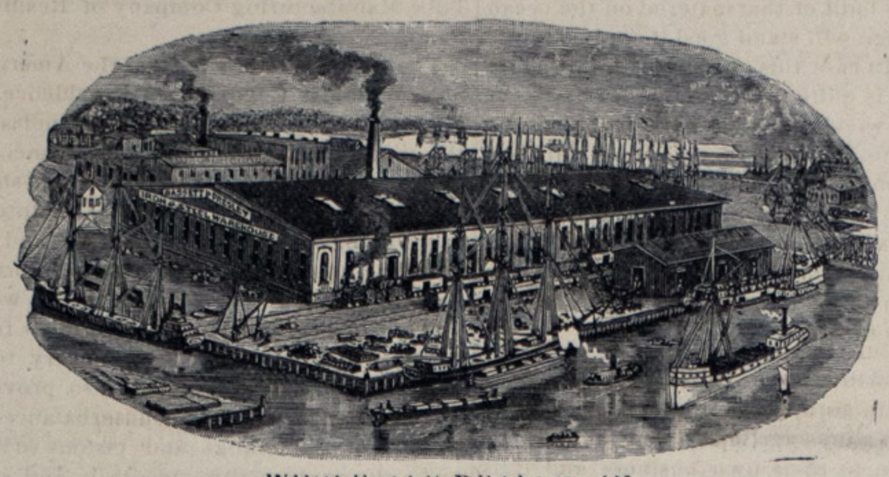

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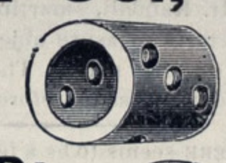

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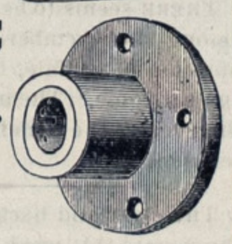

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Commencing Sunday, May 30, 1886 at 5 o'clock p. m the time given in the figures below is the new standard (Ninetieth meridian) time, which is thirty-three minutes slower than Cleveland time proper.

Eastward.	Arrive	Depart.
No 4. Fast Limited Express.....	*2 55 A M	*3 05 A M
No 8, N Y, B & A Express.....	*8 25 A M	*8 50 A M
No 26, Elyria Accommodation.....	†7 45 A M	.....
No 24, Buffalo Ac'm via Sandusky	†10 30 A M	†10 45 A M
No 24, Toledo Accom via Norwalk	†10 30 A M	†10 45 A M
No. 10, New York & Boston Ex..	*11 40 A M	*12 noon
No 12, N Y & B Fast Express.....	*2 10 P M	*2 45 P M
No 2, Night Ex via Norwalk.....	9 40 P M	†10 00 P M
No 22, Night Ex via Sandusky...	†9 40 P M	.....
No 26, Conneaut Accommodation	†4 25 P M	.....

Westward.	Arrive.	Depart.
No 1, Fast Limited Express.....	*12 15 A M	*12 25 A M
Cleveland Express.....	*2 15 A M	
No 3, Chicago Express via " ..	§6 00 A M	6 30 A M
No 25, Mich Accom Norwalk.....	.....	†6 30 A M
No 21, Toledo Ex via Norwalk...	†12 50 P M	†3 30 P M
No 5, St Louis Ex via Sandusky..	*10 45 A M	*10 50 A M
No 9, Chi Pac Ex via Norwalk.....	6 15 P M	½6 40 P M
No 31, Elyria ac to Elyria only...	.....	†4 30 P M
No 27. Conneaut Accommodation	†8 10 A M	.....

Sunday train for Nottingham—Depart 8:15 a. m. and 1:45 p. m.; returning, leave Nottingham at 8:50 a. m. and 3:45 p. m.
Reference marks—* Daily, † daily, except Sunday, § daily, except Monday.
A local Cleveland and New York sleeper daily on No. 12, leaving Cleveland at 2.45 p. m.; arrive Grand Central depot, New York, 10 30 a. m.
For full information as to trains and connections apply at the Union ticket office, corner Bank and Superior streets, under Mercantile Bank.

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Following is the time in effect April 25, 1886, and until further notice:

EASTWARD.	Arrive.	Depart.
Buffalo Passenger	*10 40 A M	*10 45 A M
Chicago Passenger.....	*9 00 P M	.....
Local Freight	* 4 40 A M	* 5 45 P M
WESTWARD.	Arrive	Depart.
Chicago Passenger	.....	*6 45 A M
Fostoria Pascenger	*4 46 P M	*4 51 P M
Local Freight.....	* 5 00 P M	* 5 50 P M

ROCKY RIVER ACCOMMODATION.
Depart—*7:40 a. m., *1:35 p. m.
EUCLID ACCOMMODATION.
Depart—*6 24 a. m, *9:10 a. m,. *5:05 p. m.
*Daily except Sunday.
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For information, call on nearest agent of the Company, or address B. F. HORNER, Gen'l Passenger Agent,
LEWIS WILLIAMS, General Manager, Cleveland, O.

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Marine Record.

Published Every Thursday at 144 Superior Street, [Leader Building] Cleveland, O.

A. A. POMEROY, EDITOR AND PROP'R

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Subscribers and others are respectfully invited to use the columns of the MARINE RECORD for the discussion of pertinent topics.

Entered at the Post Office at Cleveland as second-class mail matter.

CLEVELAND, OHIO, THURSDAY, JUNE 24.

THE LIFE SAVING SERVICE.

The report of S. I. Kimball, superintendent of the life saving service, Washington, for the year ended June 30, 1885, has just come to hand. The report shows the increased efficiency of the service which is, without doubt one of the most humane movement under the auspices of any government. In this report the description of rescue and the gallant conduct of individual members of the different crews are very vivid and but show that when the American life saver is bent on duty no terrors of the lakes or oceans will deter him.

In the lake districts, North, South and Eleventh districts presided over by Captains D. P. Dobbins, J. G. Kiah and Nathaniel Rogers, respectively, the casualties as detailed by the report and the lives and property saved are as follows, aggregate of the action of the three districts being made: Number of disasters 138, value of vessels $1,178,620, value of cargoes $214,530. Total value of property $1,392,150. Number of persons on board of vessels 903, number of persons saved 901, making the number of persons lost 2. There have been 25 persons succored at stations for 44 days. The amount of property saved in the three lake districts above mentioned amounts to $1,296,325, the amount lost being but $96,825 and but seven vessels totally lost.

This is an excellent record and wherever the government finds that the establishment of a life saving station will do general good equal to the above it should not hesitate a moment in pushing it to completion. It is a pleasure to be able to note that the establishment of several additional stations have been provided for, but there is a very important locality which has not yet been designated. We refer to Ashtabula Harbor. The growing importance of that port leads us to advocate the speedy adoption of a measure that will lead to the establishment there of a well equipped life saving station.

THE MILITIA OF THE SEA.

The secretary of the navy has addressed a communication to the president of the board of inspection of vessels, at New York, with a view of securing an invoice of the mercantile marine of the United States, to ascertain the number that can be utilized in the event of their services being needed, auxiliary to the navy, as cruisers for transports or for special purposes. It is also the purpose of the department to extend the functions of the inspection board to the examination of steamers of all classes in order to ascertain and report upon their adaptability for the above mentioned service. Necessary action will be taken to enlist the interest of ship owners in the project, and the names of desirable vessels will be listed and designated as the auxiliary naval list.

The merchant marine, at the close of the fiscal year, ended June 30, 1885, numbered 23,963 vessels of all classes, with a tonnage of 4,265,934 tons, and the estimated value of the whole amount of floating property under the flag, by adopting the methods usually made use of, and allowing 10 per cent for the difference between wooden and iron vessels, is put by the commissioner of navigation at about $180,000,000, which shows that vessels will average about $7,511.16 each. As the proportion of iron vessels on the lakes, as compared to the whole, is equal to vessels built of that material on the ocean the average will stand good if applied to the lakes. In case this measure is followed to results it is quite probable that a number of iron and wooden vessels here would find a place on this list, (as they are built equal to the best in any trade,) especially as it would be found necessary to have a number of these auxiliary cruisers to guard our extensive coast line in case any unpleasantness should arise between this country and our Canadian neighbors.

THE Northwestern Miller says that it is claimed in authoritive circles that the railroad elevators at Buffalo will shortly be made free to their own business and thus break up the elevating combination and greatly reduce rates. The movement is said to have originated in Chicago, and the statement is made that the Illinois railroad will not renew the contract with the Buckingham elevators which soon expires, and that it was the intention of the road to make elevation free and do its own business. This doubtless means the absorption of the Buckingham houses by the railroad, and it will if consummated entirely revolutionize the grain trade of the lakes. The trade will rejoice in what can hardly fail to be the removal of a burden from the lake trade, even if the railroads get the best of the bargain.

A VIGORGUS protest often changes ill-conceived action on the part of any of the bureaus controlling maritime affairs. In the case of the abandonment of the light at Escanaba, in order to place one at Green Bay, the protest of the citizens at Escanaba worked good results and the light will be continued. If the Escanaba light was a necessary aid to navigation when it was constructed there is no reason why its destruction by fire should lead the government to abandon the site unless the new light should be erected on the eleven-foot shoal. After acknowledging that a light house is necessary at Green Bay, steps should be taken to put one there without depriving any other port of its light.

ALTHOUGH the president has opposed the new Dingley shipping bill, which virtually disposes of all fees heretofore levied against vessels, he discovered a defect in the bill which will require amendment before it will become operative. Mr. Dingley made an effort to have the necessary change made but Mr. Randall, smarting under the defeat of his tariff measure objected to the suspension of the rules. The adoption of the amendment has therefore been delayed.

THERE seems to be a feeling of uneasiness among the members of the shippers combination in Buffalo, bad faith being charged against some. The more rings we can break the greater the benefits to accrue to the vessel men.

THE river and harbor bill will come up in the Senate this week for final action.

THE NEW STEAMER.

The steamer building at Quayles' yard for Captain Thomas Wilson will be launched on Saturday and will add another A1 steamer to Captain Wilson's fine fleet. The launch will be attended with a christening ceremony. The dimensions are: Length of keel 255 feet, over all 270 feet, breadth of beam 39 feet, depth 22 feet. The main keelson is 16x16 inches, sister keelson 14x16, floor keelson 10x13 and 3 inches in thickness, running athwartships; the bilge keelsons are 10, 9, and 8 inches thick. The ceiling is 6 inches thick from the bilge up to the wake of the gangways where it is 4 inches, and above the gangways there are three strakes 8 inches thick. The lower deck beams are 10x10 inches and the upper 8x8; the lower shelf piece 6 and the upper 5 inches. Her ends are secured by heavy breast hooks and points running fore and aft from the main keelson to the shelf piece.

The outside planking is, garboard 6 inches and the balance to the bilge and on the bottom 5 inch, the bilge being turned with 6 inch plank; from the bilge to the bottom of the freight gangways 5 inch and in the waist 4 inch; above the gangways 6 inch and the fender strake is 7 inches in thickness. She is diagonally strapped with iron 5 by ½ inch, with steel arches inside and out, extending fore and aft, the outer arch being let in flush on the frames and the inner one on the ceiling. The rudder is strengthened by a wrought iron sleeve extending from the top of the barrel to about four feet below the backing. The machinery built by Globe Iron Works, is compound, the cylinders being 28 and 50 by 42 inch stroke. The steam making power consists of two steel boilers, 16 feet long by 8 feet 6 inches in diameter, also built by the Globe Iron Works. The boiler tubes were furnished by Messrs. Bassett and Presley from the celebrated Boiler Tube Manufacturing Company of Reading, Pa.

The steam windlass is from the American Ship Windlass Company, of Providence, R. I. Unlike any steam capstan windlass in the market, it makes a direct attachment to the windlass without any counter-shaft, cross pieces, bearings, bevel gear or clutches intervening between the engines and the windlass, thus avoiding the chance of breakdown. To avoid any cutting of the worm and worm gear a patent lubricator is furnished, which will oil perfectly every tooth as it passes. The windlass is also provided with a balance wheel to counterbalance the weight of the cranks and pistons so as to make the engines run smoothly and still. The crank shaft is all forged in one piece, so that there are no keys in the cranks to get loose. The engines are placed close together and in the most accessible position to be taken care of, thus leaving the gypsey ends all clear and free to use, and without any chance to entangle the hawsers or injure same by the heat of the steam. Taken all in all, they are the most simple and durable steam windlasses ever made and the easiest to handle.

[*Around the Lakes Continued from 1st Page.*]

CHICAGO.

Special to the Marine Record.

Grain freights are steady at 3 cents on corn to Buffalo.

The schooner Polly M. Rogers, Captain O. C. Wilcox, arrived here Friday morning, with coal from Oswego, her first trip this season. She received new decks and other repairs at Cape Vincent, her home port, before starting out.

A. Booth & Son's new steam yacht will be supplied with an American Ship Windlass Company's No. 3 capstan windlass and No. B capstan by Messrs. Dunham & Hoit, ship chandlers, Chicago.

The insurance on the schooner S. G. Andrews, lost last fall at Scott's Point, Lake Michigan, was last week paid in full by the Anglo-American Assurance Company.

The propeller Robert Wallace, Captain F. Brown, arrived Friday last from Ashtabula, with 1470 tons of coal, consigned to the Chicago South Side Gas Company. Her consort, the schooner David Wallace, arrived with 1780 tons of coal from Cleveland, for O. L. Richardson, of this port. She was in command of Captain McPhail, Captain Henry Wallace having been forced through illness to go from Cleveland to his home at Lorain.

The steambarge New Era has been inspected by Stewart Moore and Cyrus Sinclair, our local inspectors.

At Miller Brothers' the tug Wm. L. Ewing is in drydock receiving repairs. She had her shaft bent by getting a pile in her wheel when towing near the new railroad bridge at Twelfth street Sunday afternoon; the tug D. L. Babcock and the schooner J. F. Tracy to have leaks stopped; the tug Success to have her shoe and stern bearing fixed.

C. P. Willard & Company have completed a very handsome steam launch, 32 feet over all, 6½ feet beam, 16 inches draft. Her engine indicates at full stroke 20 horse power. Her boiler is of steel, with locomotive fire box, and her 32 inch wheel is of gun metal. She will be sent to Oconomowoc lake, and it is anticipated she will make great speed. They last week shipped to Pittsburgh a new steam launch, 25 feet over all, 6 feet beam, 3 feet deep, for C. E. & G. Painter, of the Pittsburgh Iron Works. They are building a steam launch for E. & J. Covert, Farmers Village, for use on Cayauga lake, 45 feet over all, 9 feet beam, 4 feet deep. Engine 6x8, vertical boiler, 10 horse power.

The schooner Daniel G. Fort, Captain C. H. Daniels, arrived on the 16th from Grindstone island with granite paving. This is her first trip this season. She received extensive repairs at Ogdensburg this spring, and a new main mast and fore and main top masts at Dunford & Alverson's ship yard, Port Huron, on her way up.

On Tuesday Judge Gresham in the United States circuit court handed down a decision in the Scott-Avon collision case. October 28, 1880, the Union line propeller Avon collided with the barge Thomas A. Scott off Milwaukee at 8 o'clock in the evening. The Phenix Insurance Company, which held policies on the Scott cargo, paid its share of the loss, amounting to $5,000, and then libeled the Avon for the full amount. When the case came up in the United States district court the evidence showed that at the time the disaster occurred the Scott was lying at anchor exhibiting proper lights, and that there was plenty of sea room for vessels approaching in all directions to pass her. Judge Blodgett decided that the Avon was at fault for not having a proper lookout. An appeal was taken and Judge Gresham affirmed the decision, awarding the libelant the full amount of damages claimed, together with interest and costs. Robert Rae conducted the case for the insurance company.

Captain James Beckwith and Captain John Prindiville, both well-known vessel agents and marine insurance brokers, were before the board of directors of the Chicago board of trade, Tuesday, charged by Thomas G. Crosby and Keith & Carr with having refused to turn over commissions amounting to $1,500 alleged to be due complainants. The affair grows out of an attempt to settle the business of the old Big Four cargo-insurance combination that flourished for a brief period during the spring of 1883. Failing to effect a settlement Crosby & Gunning and Keith & Carr brought suit against Captain Prindiville and Atkins & Beckwith to force an accounting. When the case came up before Judge Tuley the attorney for the defendants moved to have it erased from the records on the grounds that all pools are against the interests of public welfare and consequently illegal. The motion was overruled. The matter has become more complicated by the death of Mr. Atkins, Beckwith's former partner, and an effort has been made by the plaintiffs to obtain a settlement by arbitration. Failing to do this the board of trade, of which all parties concerned are members, was appealed to. After listening to the affidavits from both sides the board decided that it had no jurisdiction.

The Peshtigo barge Fred Carney, in tow of one of the V. O. T. Company's tugs, when going up the river Friday afternoon collided with the steambarge Otego, doing considerable damage to the latter's bow, on the starboard side, and carrying away her own anchor stock and a cathead.

The steambarge New Era was released on Monday without any penalty, for neglect to have her inspected or to procure enrollment papers, by order of the Treasury Department. The leniency on the part of the government towards an American vessel was well received here.

The schooner F. J. King is in port. Since her last appearance here she has undergone a rebuild. The King is owned by J. S. Dunham and Capt. William Griffin, her master. Late last fall she was sent down to Garden Island, Lake Ontario, to be rebuilt. Her shipyard work cost $2,681, and as the repairs were made in a Canadian port the Collector of Customs at St. Vincent, N. Y., assessed her owners duty on the new work. An appeal was taken to the Treasury Department. Mr. Dunham received notice that as no evidence had been produced to show that the King was compelled by stress of weather or other casualty to put into Garden Island for repairs the appeal was rejected.

WILLIAMS.

MILWAUKEE.

Special to the Marine Record.

Schooner Florence M. Smith was in port minus her bowsprit and jibboom which she lost whilst winding at the Minerva dock.

There has been a lifeless grain freight market at this port for two week, but there came a sudden surprise for vessel agents, when a shipper inquired for tonnage. As a result 85,000 bushels capacity was taken. The new barge John Shaw was placed for 65,000 bushels to Buffalo on a through rate, and the schooner H. M. Scove loaded 21,000 bushels at 3 cents to Buffalo. The Annie Smith—consort of the Shaw—went to Chicago to load. The J. S. Fay and consort D. F. Rhodes go to Escanaba.

The wrecking tug Leviathan, with the leaking schooner John Raber, arrived here Monday morning from Cheboygan. The steampump was worked continually on the trip to keep her free, but was removed on her arrival, and extra men were engaged to work her pumps until her cargo of cobblestones is unloaded. She will be docked at Wolf & Davidson's yard.

The scow Nellie Church has been released from the beach at the Door.

The schooner Snowdrop is at Mackinac with four feet of water in her hold. The schooner is cedar-laden for the lower lakes. A tug will be sent from Cheboygan to render her assistance.

At Wolf & Davidson's shipyard the steam barge Thompson Kingsford, which will hereafter be known as the J. H. Pauley, after her owner, is in drydock; she has received a general overhauling, comprising new kelsons and shelve strakes, deck beams, part new decks, new pilot house, mast, windlass, steering gear, new boiler house, new boiler

of Otis steel, 6½x12, supplied by Love & Schofield, boiler makers, Port Huron; new smoke stack and a new 6ft. 6in. Sheriff's wheel.

The new steambarge building at Wolf & Davidson's shipyard promises to be a very fine vessel; she is 285 feet over all, 37 feet beam, 23 feet depth of hold. She will be of great strength, her kelsons, floor and frames are very heavy and she will be steel strapped. She is an excellent model and will have very large carrying capacity.

At the Milwaukee Shipyard Company's the fine new steambarge they are building is being gotten on with rapidity, her frames are all up and some of her bottom plank on. Her main keelson is 29x28, two sister keelsons 12x12, four floor keelsons, 12x12, her full length. outside plank, starboard, 7 and 5 inches thick, 5 inches up to the plank shear, from there to the rail, 4 inches inside and out; the inside plank on floor 3 inches thick, on bilges, 9, 7, and 6 inches, for about 5 feet from there to clamps, 5 inches, two strakes of clamps, 6 inches, shelf pieces 6 inches, from false plank shear to rail inside 4 inches, extra heavy frames and steel arches. Her engine will be a fore and aft compound 22x40 and 40x40 and steel boiler 9½x16 to be built by the Detroit Dock Engine Works, Detroit.

At James Sheriff's Vulcan Iron Works on Tuesday, a sectional propeller wheel was cast for the new fire boat, building at Miller Brothers shipyard, Chicago, for the Chicago fire department. Another wheel was ready for casting for the tug Kitty Haight of Port Huron, and a wheel for the steambarge Maggie Marshall, of Manistee, has just been completed.

EAST SAGINAW.

Special to the Marine Record.

During the past week a number of eastern and Ohio lumber buyers have been in the city, and large sales are reported, to move at once. The coming week will see a good demand for tonnage, but there are plenty here who want loads, and it cannot possibly help freights at this time in the season.

The only marine item of interest during the week was the launch on Thursday of the barge Theo Perry, owned by Mr. John A. Prentice and others, of Saginaw. The launch was witnessed by about three hundred persons, and was a success in every sense of the word. She was taken to Hobson's derrick where her spars were put in. Those who remember the Perry of old will hardly know the fine craft which bears that name now. It was Mr. Prentice's intention to change the name of the Perry to the Robert Wildman, as stated in last week's RECORD, but Mr. P. informs us that the Department claims there has been so much changing of names that they have been obliged to call a halt.

The Sunday excursion business on the river line steamers Burt, Mason, and Lucille is getting in handsome profits for their owners. No less than fifteen hundred passengers rode on the above steamers on Sunday last to Saginaw Bay and return, all for fifteen cents.

The long looked for trial trip of the N. H. Bruno, a new steam yacht, built by Mr. Bruno, which is peculiar in having her wheel directly under the craft, a little aft of midships, was made on Sunday last, and proved that the Bruno, although she has been the laughing stock of many for some time during her owner's alterations, has at least proved that the scheme for a fast yacht where plenty of water is to be had is a good one. The Bruno made nearly sixteen miles per hour, which is two miles faster than she made with the wheel in the usual place. Mr. Bruno would like to hear from others through the MARINE RECORD as to what they have accomplished with wheels placed in a similar position.

The barge T. H. Cahoon, loaded in the river during the week, and when partly loaded found that a mistake had been made and the lumber was taken out again.

Hon. T. H. Cahoon, of the firm of Cahoon & Hutchinson, lumbermen and vessel owners, Cleveland, O., was in the city during the week, looking after his interests.

The propeller Porter Chamberlain and consorts Ida Corning, T. H. Cahoon, and A. T. Bliss will enter the Lake Superior lumber trade after the present trip to Buffalo.

SHAW.

ST. CLAIR FLATS.

Special to the Marine Record.

There has been a goodly number of pleasure seekers at the Flats this week.

There was a scene at the upper canal Saturday evening which will probably not be witnessed for years to come. It was the meeting of thirty-five steamers, vessels, and barges without accident. There was one continual blowing of whistles and answers. The skill exhibited by the masters is well worthy of note. The captain of the steambarge S. Chamberlain is entitled to a goodly share of praise for the space he had to get through without breaking a rope yarn. All hail to the boats and crews.

We understand that McNiff & Son have left their case in the hands of the Insurance Company against the Canada Shooting Company, for the destruction of their range lights, placed below the club house dock for the benefit of the navigators, where they became obnoxious to the care taker of the Canada Shooting Company, and he took his little hatchet and cut them down. Oh, Jimmy, you bad boy, the hofficer will be will be hafter you bye and bye. The lights were immediately transferred to Herson's Island where a man is employed to light them.

The grand opening of the new club house called the Rushmere was a perfect success, there being about three hundred persons present. A sumptuous bill of fare, good music and dancing were the leading features of the day and evening. Rushmere was beautifully draped in the national colors; flags of every nationality streamed above the grand structure. Success to Rushmere.

The Smith & Alger boom raft that broke up in front of Star island is being released. The tug Torrent is here waiting for same.

The tug Oswego, bound up, with two schooners in tow, while passing Star Island, narrowly escaped being run into by the steambarge Schoolcraft which was passing at the time and took a bad sheer, and but for the good management of the mates in charge would have had a collision.

The steamer Keweenaw has become disgusted looking for the Cole to be ahead coming down, so she turned around, and now has the pleasure of seeing the Cole ahead coming up.

The work on the Cole-Grummond new dock is progressing finely.

Mr. C. H. Gooderham, president of the Canada Shooting Company, has been to the Flats trying to smooth over affairs with McNiff & Son, regarding the destroying of their range lights.

BOB.

KINGSTON.

The steam yacht Ripple has been purchased by Captain Pierce.

Twelve thousand cedar posts will arrive for Rathbun & Company from Lavant station in a few days.

The rate of Chicago to Kingston was 4¼ cents for corn and a quarter of a cent better for wheat.

The steamer Ontario left Gananoque for Charlotte, where she will engage in the excursion business from that port.

The schooner Craftsman, while opposite the main docks, had her fore-mast carried away. It will cost between $300 and $400 to make repairs.

The steam yacht Ometa of Belleville has arrived. She came down to be inspected.

The schooner Craftsman which left Portsmouth for Toledo, light, when off Main Ducks she was struck by a squall, which snapped off her foremast and otherwise damaged her rigging to the extent of about $150. She returned to this port for repairs.

DULUTH.

The steamer R. P. Ranney left Duluth on the 19th. When ten miles out she became disabled in her machinery and put back for repairs. She will be delayed several days.

The P. B. Locke will bring a cargo of railroad iron to Duluth, which will be the last of that ordered by the Northern Pacific.

M. E. Chambers' fleet of boats is the centre of attraction and many are the comments on the models of these craft. The two which are supplied with machinery have been christened by Mr. Chambers the James Bardon and the Gen. J. H. Hammond.

Information has been received here that J. Lynch who has been employed at Chicago as foreman of grain trimmers, suddenly decamped from the Garden City taking with him some $75 which was given him to pay off his hands. The reference this has to Duluth is that Lynch is said to have come at once to this city.

The shipping trade on the lakes has now assumed a really paying basis. The difficulties over grain and coal rates have all been amicably settled for the reason that they were retarding business and causing losses to shippers. There is now a very great demand for tonnage at all the leading grain ports and it is thought that the vessels which left the grain trade on account of the low rates and entering the Lake Superior ore trade, will all go back to the grain at once.

CHEBOYGAN.

The tug Leviathan left here on the 18th with the leaking schooner John Rober for Milwaukee. Leviathan will return to propeller Graves, on the Manitous, and recover all her machinery, chains, anchors, etc., for Wolf & Davidson.

SAULT STE. MARIE.

The steambarge Raleigh, aground above the canal, was released after lightering 500 tons of ore. Her bottom is uninjured and reloading, passed down.

Work on the Thomas P. Sheldon is progressing favorably. Her deck load of railroad iron has been removed and the divers are engaged in taking out the cargo from the hold.

The passages through the new locks on the 20th, are the largest known in the history of the canal. The canal was overtaxed and caused more than ordinary detention to traffic. Several more crafts are expected between now and midnight.

ST. IGNACE.

The Snowdrop, in tow of a tug, ran over a rock on Tuesday night when leaving Prentice Bay. She commenced leaking and was taken to Mackinac Island, where she sank at the dock.

The propeller Atlantic, of Grummond's Detroit and Mackinac line, ran on Mackinac Island reef, during a dense fog Wednesday morning. She went nearly over the reef, her bow being in deep water and her stern out over two feet. The tug Swain of Milwaukee has been ordered to her assistance.

FAIRPORT.

A six-year-old son of Thomas Murphy, engineer of Smith's dredge No. 3, was drowned in the river on the 20th. Life was extinct when the body was recovered.

CLAYTON.

Special to the Marine Record.

The steam yacht Idle Hour, of Buffalo, has headquarters at Clayton.

The steamer Sport is fitted out and passed up on Monday.

The steamer Hazleton is making three trips a week from Oswego to Alexandria Bay.

Schooner Colonel Cook passed down on Wednesday.

The propeller Paeific arrived down on Wednesday evening, and as the weather was thick she remained all night.

Propeller Haskell and steambarge Mont Eagle and consorts passed down on Friday.

U. S. steamer Bibbs smelled bottom on the Featherbed shoals; cause, foggy weather. The tug Seymour pulled her off. No damage was done.

The steamer Ontario, owned by Captain George Sweet, has been fitted out at Gananoque and left Saturday morning for Charlotte, under command of Captain Jas. B. Estes. She will run in the excursion business there.

Propeller Pacific passed up on Saturday, and propeller Frost down on Sunday.

The steamer Calumet was launched on Saturday evening. Her boiler will be put in on Monday.

Steamer St. Lawrence, Captain M. D. Estes, will commence on Tuesday to make two trips a day, from Cape Vincent to Alexandria Bay.

B.

PORT ARTHUR.

The Alberta left with freight and passengers for Owen Sound.

The Kakabeka left on her first Point de Meuron trip.

An interesting rowing race is announced to take place on the 25th inst. Mr. J. L. Taylor is backing in the sum of $50 against any man in Port Arthur barring C. Forey. The challenged has been taken up by Mr. A. F. Sparling and $20 forfeit placed in the hands of Mr. A. Johnson. The boats to be used are the lapstreak boat, and the race will be half-mile and turn. The name of Mr. Sparling's man is kept dark, but there are some who think they can make a pretty fair guess.

UNSIGHTLY CRAFT.

"I was thinking the other day," said the vessel owner, "how few really handsome vessels there are on the great lakes. Where there is one good looking craft there are a hundred ugly looking old boxes which claim the name schooner because they are rigged out with masts and sails. It was not so fifteen or twenty years ago. Then when a man built a vessel he had an understanding with his architect about dimensions and lines and that sort of thing, while he did not overlook any point about strength of material and excellenee of work. Now, however, a vessel is built for capacity alone, and the little arts which serve to delight the eye are painfully absent from her construction. Fifteen years ago, when medium sized schooners were being built at every port on the lakes, when the canaller was giving way to larger carriers, some really handsome vessels were turned out. Among them were the schooners Annie L. Peterson, Unadilla, Moonlight, Porter, George, Ellen Spry, and many others. There were so many, however, which were not handsome or even fair looking, it detracts largely from the beauty of the few I have referred to. When the era of big steam barge uilding began it seemed to me that every marine architect on the lakes vied with others to turn out as ugly looking vessels as he possibly could. As the vessels grew larger, the architectural work grew worse, and even now, though they have been building big crafts for ten years or more, they have not succeeded in turning out a handsome model that I know of. A Pennsylvania shipbuilding firm is engaged on a steel vessel for the Anchor line, for which great predictions are being made. I only hope she will be a handsome vessel. In building these big fellows one or two builders made an attempt to get beauty in hulls, but they only succeeded in making them more unsightly than if they had left them perfectly straight and flat. I think now that an era of better shipbuilding in this respect is dawning. Let it come."

THE NICARAUGA TRANSIT.

At the Capitol in Washington is a large and working model, illustrating in the plainest manner Mr. Eads' plan for transporting ships over the Tehuantepec isthmus. There is a large steamer in the dock at the harbor; near by is a lock at the end of the railway. When the model is in operation the cradle on which the steamer is to be carried is run on the track over the lock. The water is now drawn out of the lock and the cradle sinks to the bottom. The steamer is then floated into the lock, and after being properly secured upon the cradle, both are raised till the cradle is on the track level, then an engine is hitched to the cradle, and ship and cradle are upon the railway.

As a mere toy this model attracts throngs of visitors, as it did when exhibited at the New Orleans Exposition. But so far, the distinguished inventor has only succeeded in awakening the gibes and sneers of the wiseacres in Congress and in the daily papers. To hear and read what is remarked about this plan of transporting ships, one would think that Mr. Eads was a lunatic only lately out of the asylum. The ingenuity of the plan and its perfeet adaptability to the work, seem to be wholly lost amid the jeers and ridicule which it has caused.

For our part, we have no sympathy with this way of treating this matter. We express no opinion whatever on the Monroe doctrine, though it is possible, as we think, that our so-called statesmen may, in a few years, look back to the present hour and find that their vision was exceedingly limited as to the importance of the international questions involved in this isthmus transit question. But we proclaim loudly against this outcry of hostility to the Eads plan of transit, or the insinuation that he is in any manner a crank. We demand that his plan, which does not seem to us, so far as we are informed, either unreasonable mechanically or impossible financially, shall at least have a fair and impartial consideration from Congress and in the newspapers as well, before final judgement is passed upon it.

SCHOONER MULCTED.

The owners of the schooner T. J. King, have been mulcted heavily for work which was performed on the vessel at Garden Bay, Ont. She put into that port last fall, and being in a decayed and leaky condition, her master, Captain William Griffan, had extensive repairs, costing $2,631, made on her. Last spring, when she returned to an American port, where there was a collector, the latter insisted upon Captain Griffan paying the government 50 per cent of the cost of the repairs, as the law requires that an American craft shall be repaired in an American port, except in cases where it is impossible for the vessel to reach an American port. Captain Griffan appealed from the collector to the Treasury Department, claiming that the King could not proceed any further on account of her decayed condition, In his decision the Secretary said that Captain Griffan had failed to show that stress of weather had made the repairs necessary, and he instructed the collector to enforce the full penalty.

A lumber firm, of East Saginaw, has sold fifteen thousand acres of pine land on the head waters of the Peshtigo river for $712,000, the purchaser being S. J. Murphy, of Detroit.

Canadian vessels are not allowed to discharge their cargoes at Wallaceburg after 4 p. m. At Sarnia steamers are not allowed to land excursionists on Sunday. Canada is a great country.—*Buffalo Com. Advertiser*

FOR SALE.

STEAM PASSENGER TUG TEMPEST.

Steel hull 60 feet over all, 10 feet beam, 6 feet hold. Engines fore and aft compound, 8 and 14x12. Otis steel boiler, return flue, 110 pressure. Complete passenger outfit for forty-three passengers. Speed 12 to 16 miles.

HISTORY OF LAKE NAVIGATION.

BY J. W. HALL.

Written for the Marine Record.

CHAPTER LXXVI.

During the navigation of 1869 there were variously employed on the northern lakes 121 side-wheel steamers, 140 propellers, 247 tugs, 175 barques, 50 brigs, 904 schooners, and 223 scows, making a grand total of all craft employed of 1860. At this epoch of lake history side-wheel steamers began to decline, the screw class having already gained the ascendancy, and it was but little dreamed of that a full-rigged ship had ever been on these waters, for they had long since disappeared and were almost entirely forgotten.

Full-rigged brigs became extinct this year with the loss of the Robert Burns in the Straits, together with ten souls, a sad ending to this style of rig, which never should have been introduced into lake service. Those in service were called brigantines, and in many instances were a base counterfeit on the genuine.

The number of scows gradually lessened, as they were only useful in shoal waters, such as creeks and other places where vessels of greater draft dare not approach.

The class known as tugs had reached their primeval and flourished while those of the harbor class rapidly increased and have been of important service to vessels for towing in and out of ports.

During the navigation of 1869 no less than 138 vessels of every description passed out of existence, with an aggregate loss of tonnage amounting to 33,920 tons. There were commissioned during the season 67 new vessels, with an aggregate amounting to 19,293 tons, thus showing a decrease for the year of 14,627 tons. The number of vessel sales which took place amounted to some where near 335, so far as the records show.

The number of disasters on all the lakes and rivers were 2,048 of all kinds. Of this number there were 174 minor collisions and leakages, 37 groundings on the St. Clair Flats, and 29 occurring in Detroit and St. Clair rivers.

Vessels commenced plying on Lake Michigan March 26, and between Detroit and Port Huron April 5, at which time vessels commenced plying on Lake Ontario. The steamer R. N. Rice, Captain Wm. McKay, commenced her trips between Detroit and Cleveland on the same date. Between Detroit and Saginaw the schooner Telegraph, Captain Allen, was the first vessel to arrive at Bay City, April 18, encountering much ice during the voyage. The propeller City of Concord was the first to reach the Welland canal April 23. The propeller Young America was the first to pass through Mackinac Straits April 24, bound eastward, followed by the barkantines J. C. King and Major Anderson, which passed Detroit four days later. One hundred vessels took their departure from the Welland canal on the same date, April 30, bound for western ports. The propeller Dean Richmond, Captain Ben Wolvin, was the first boat to leave Buffalo, May 1. The Sault canal was open May 7, the propeller St. Paul, Captain John McKay, the first to pass through, bound for Marquette.

On May 25 the bark Etowah, Captain W. F. Campbell, arrived at Cleveland from Liverpool with merchandise, and on the 17th of June she sailed from Cleveland for Liverpool with a cargo of oil.

On the same date the propeller Queen of the Lakes was burned at Marquette and became a total loss.

The propeller Saginaw, after nineteen years service, was converted into a tow barge at Detroit.

The steamer Rothsay Castle, a former blockade runner, took her departure from Lake Ontario for ocean service.

On June 22, the schooner Reed Case, a new vessel, failed to pass through the Welland canal, having one inch too much beam, and was obliged to transfer her cargo.

The barkantine Golden Fleece was converted into a three-masted schooner, as were also the Bridgewater and Sunrise.

On August 5 the bark Thermutis, Captain Robert Dick, sailed from Cleveland for Liverpool with a cargo of oil.

The iron side-wheel steamer Helen Brooks arrived at Detroit on the same date from Baltimore, Md., en route to the Mississippi, via Chicago.

The propeller Boscobel, Captain J. P. Hodges, was burned on the St. Clair river, September 3, with the loss of three lives.

On the same date the steambarge S. Clement was dismantled of her machinery at Detroit and made a tow barge.

The screw steamer Washington left the lakes for ocean service, where she had formerly plied, passing Detroit September 25.

The propeller Lac Labelle which was sunk by the steamship Milwaukee in St. Clair river and submerged for two years, was raised, and reached Detroit on date last noted, repaired and placed in commission once more.

Captain Gordon Wilson, of schooner Lucinda Van Valkenburg, became insane at Chicago.

One of the most destructive gales of the season occurred October 17, resulting in much damage to the shipping and great loss of life.

The barge Illinois, formerly a prominent side-wheel steamer and known as No. 2 of that name, was lost off Forestville, Lake Huron. She plied for several years on the Lake Superior route, and had been fifteen years in service. M. B. Kean, Esq., Detroit, was her last owner.

The most destructive and violent gale of the season took place November 17, causing great loss of life and property, among which may be enumerated the foundering of the schooner J. B. Martin, grain laden, Captain Thomas Lord, in Lake Huron, with loss of all hands, ten lives. The schooner W. W. Arnold, laden with ore, Captain Charles Beardsley, lost, with all hands, twelve lives. The brig Robert Burns, Captain Henry Churm, lost in the Straits, and nine lives; also, the schooner Titan in Lake Michigan, all lost save one. The gale was of three days duration, and extended throughout the lake region to the Gulf of St. Lawrence. Among those lost on that date was the bark Naomi, a fine vessel, Captain James Carpenter, which was wrecked at Manistee, Lake Michigan, and under the circumstances, was the most heart-rending of any previously recorded. Captain Carpenter had himself and wife lashed to the mizzen gaff when she breathed her last, with her head resting in his lap. His last words, after asking for a chew of tobacco from one of the crew, were: "Mother is dead. This is the last chew of tobacco I shall want." After this he rolled off the deck and disappeared. He had been many years on the lakes, was a man of strict habits, and was widely and favorably known. He was, if I mistake not, a resident of Painesville, Ohio, and a Christian sailor, of which, from first to last, we find but few on the records.

The bark Wirralite was the latest arrival at Cleveland from Liverpool, November 23, with a cargo of merchandise.

The steamship Detroit was, at the close of the season, withdrawn from the Grand Haven and Milwaukee route, brought to Detroit and sold.

On December 17 navigation was closed at all points.

A FISH STORY.

A week or two ago a singular occurrence transpired at the wood camp on Wolf Creek, says the Alpine, Cal., Argus. The land on which the timber is being cut is extremely ragged and broken by huge bowlders and rocky cliffs. Over these rocks the little streams which form Wolf creek came tumbling down their snowy sources on the mountain tops. Near one of these streams a couple of sturdy woodmen set to work to fell a large pine tree which stood close to a high smooth wall of granite. About thirty feet from the foot of the tree, at which point it seemed to be decayed, the trunk divided into two large branches, one leaning over against the perpendicular wall of rock. A small stream of water poured over the rock and falling upon the limb, fell in spray down along the side of the tree. The water made the woodchoppers' position very uncomfortable, but they kept at their work and soon the tree began to totter and fell with a resounding crash, and broke in twain. The men followed its course with their eyes, but their gaze turned to a start of wonder and their surprise found vent in a loud shout, which rang from mouth to mouth and sent its echoes ringing through the mountains, "Fish! fish in the tree!" cried the woodman, for from the top of the tree poured a volume of water as it fell and with it a hundred or more mountain trout, which were left helplessly upon the stony ground. The excited woodchoppers crowded around and began to pick up the fish as they could, all at a loss to account for the presence of the trout in the tree top. The most plausible theory is that the water caused the tree to decay and become hollow, and the fish, being swept over the rock, fell down into the tree. In whatever way their presence there may be accounted for, the sight of the tree emptying itself of lively contents was wonderful, not to say startling.

SULPHUR IN ANTHRACITE COAL.

M. Dieulefait has been inquiring why there is so much sulphur in anthracite coal, and why there is so little of free alkaline carbonates in the ashes. For this purpose he has analyzed the surviving species of the families of the coal plants, particularly the equisetacœ, and has found in them a greater than usual proportion of sulphuric acid. Hence he deduces, as the answer to his questions, that the coal plants were more highly charged with sulphur than most existing plants and that for that reason their alkaline constituents assumed the forms of sulphates instead of carbonates.—*Chicago News.*

THE LIMIT OF SPEED IN OCEAN STEAMERS.

It was asserted nearly forty years ago that marine engines could be built that would drive a steamer through the water at the rate of forty knots an hour. It was claimed, however, that such a rate of speed would never be attained in an ocean steamer. It was held that no hull could long stand the strain of such a rate of speed, and that the pressure of water would crush in almost anything but a solid hull. Twenty knots an hour has already been attained by ocean steamers, and the probabilities are that this rate of speed will be still further increased. But whether forty knots an hour will be the limit is almost as much a matter of doubt as it was forty years ago, although the objections now considered are entirely different from those then offered. It seems to be conceded by naval architects and engineers that a steamer can be built to attain a speed of forty knots an hour, size and cost being the chief questions to be answered.

Prof. R. H. Thurston, in the June number of Forum, in an article upon "The Limit of Speed in Ocean Travel," says that "for vessels loaded to a limit with machinery, the higher the speed demanded, the larger must be the ship." Considering how big are the "racers" which now cross the Atlantic, a steamer much larger than even the largest of these is not considered an improbability. Upon the hypothesis laid down in the article before mentioned, Prof. Thurston enters into some interesting calculations about the size of a vessel which can cross the Atlantic in three and a half days—the time so ardently desired by some people. He says that a steamer 800 feet in length, 80 feet beam, and 25 feet draught water, would weigh, complete and in sailing trim, about 38,000 tons, "if given what may be considered as the best form to-day known for maximum speed." This vessel may be expected to demand about 35,000 horse power, at 20 knots. The power required to attain 40 knots would be calculated to increase as the cube of speed, but it is in fact found, says Prof. Thurston, that the law often becomes more favorable at these higher speeds, while a speed of 40 knots economically corresponds, according to what are known as 'Froude's laws,' to about the speed of the torpedo boats, which latter are found to have reached a velocity well beyond the the point of change of the ordinary law of resistance." He thinks, therefore, the probable power demanded as not far from 250,000 horse power. The machinery of this vessel would weigh about 7,500 tons. Her fuel consumption would be about 175 tons of coal an hour, 3 200 tons a day, and 10,500 tons for the voyage. The total weight of fuel and machinery would be about 18,000 tons, leaving 20,000 tons for weight of ship and cargo. The hull would weigh about 12,000 leaving 8,000 tons for passengers, crew, stores and cargo. Prof. Thurston estimates the cost of running a ship of this kind at not less than $75,000 for each voyage across the ocean; and to pay this, he estimates for 500 passengers at $150 each, leaving the profit to the vessel owner to come from carriage of freight and mails. He thinks passengers would be willing to pay $150 each, on account of the great saving in the time of the voyage.

This description and estimate simplifies the question of the kind in ocean travel to the problem, What speed will pay? If all the deductions before mentioned are correct, no engineering or ship building difficulties are in the way of giving the ocean voyager a three and a half days' trip across the Atlantic. It is said that the big "racers" of to-day do not pay a profit, even if they meet expenses. Cabin passenger rates are not likely to increase greatly, and increase in traffic is the only direction to look for more money. At present, therefore, the forty knots an hour steamer is not a probability. But when she can be demonstrated to be commercially a success—and not before—she will be built for the Atlantic trade.—*Maritime Register.*

RAPID COAL LOADING.

The London Shipping World instances the following cases of quick coal loading at the Bute docks, the coal being of South Wales extraction, said to be very inert. "On February 20, 1886, the Vectis steamship, for Messrs. Worms, Josse & Co., loaded 1,167 tons in eight hours; March 8, 1886, the Elemore, steamship, for the Dowlais Iron Co., loaded 1,212 tons in nine hours; April 22, 1886, the Great Yarmouth, steamship, for Messrs. "Lewis Merthyr Co.," loaded 1,008 tons in six hours; May 3 and 4, 1886, the Rose Hill steamship, for Messrs. Worms, Josse & Co., loaded 2,291 tons in twenty hours.

The employment of movable tips in the loading of coal cargoes is a great stride in advance. It obviates the time lost in shifting ships for working each hatch, and enables coal to be poured into three holes simultaneously. The new Roath dock, which will shortly be opened, is to be equipped with fixed and movable tips. In the construction of this dock regard has been had to affording accommodation for the largest steamers; and no doubt the inducements offered will attract the attention of the shipping interests to this enterprising port. When the new dock is open, it will be possible for three or even four tips to be worked on the same vessel. A good instance of the advantage of this arrangement is shown by one of the cases quoted, viz., that of the Great Yarmouth, which vessel was loaded with 1,008 tons of coal in six hours, and this with two tips. With four tips the number of hours occupied would be obviously reduced 50 per cent, and thus a steamer of 4,000 tons could be loaded in twelve hours, or at all events within fifteen hours."—*Nautical Gazette.*

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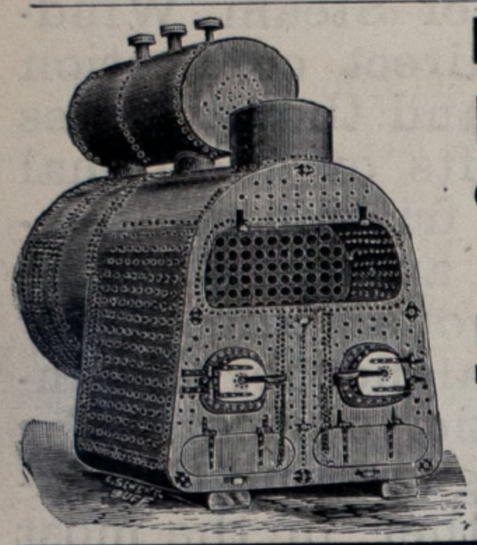

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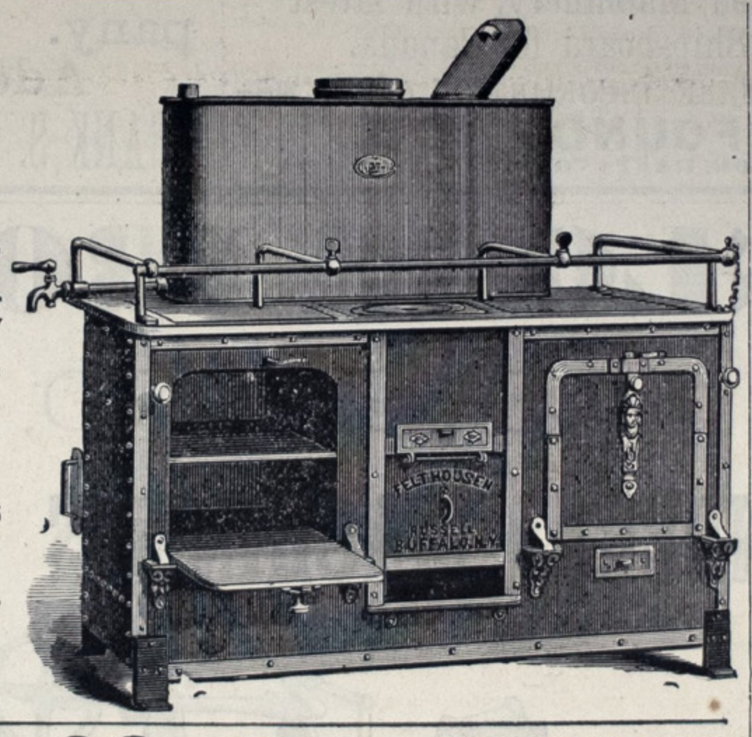

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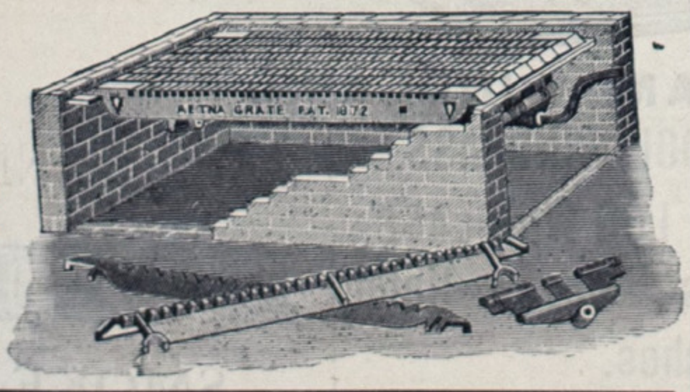

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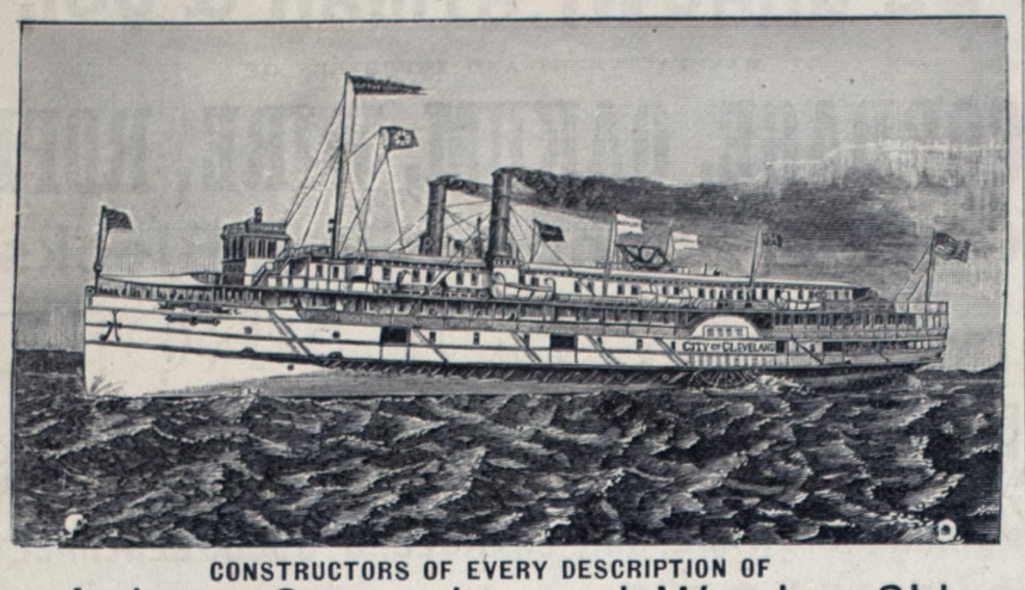

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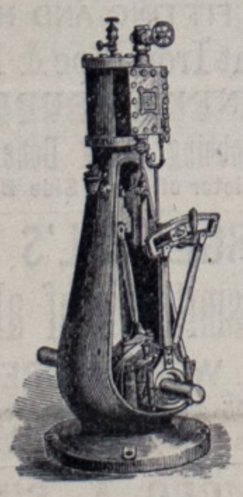

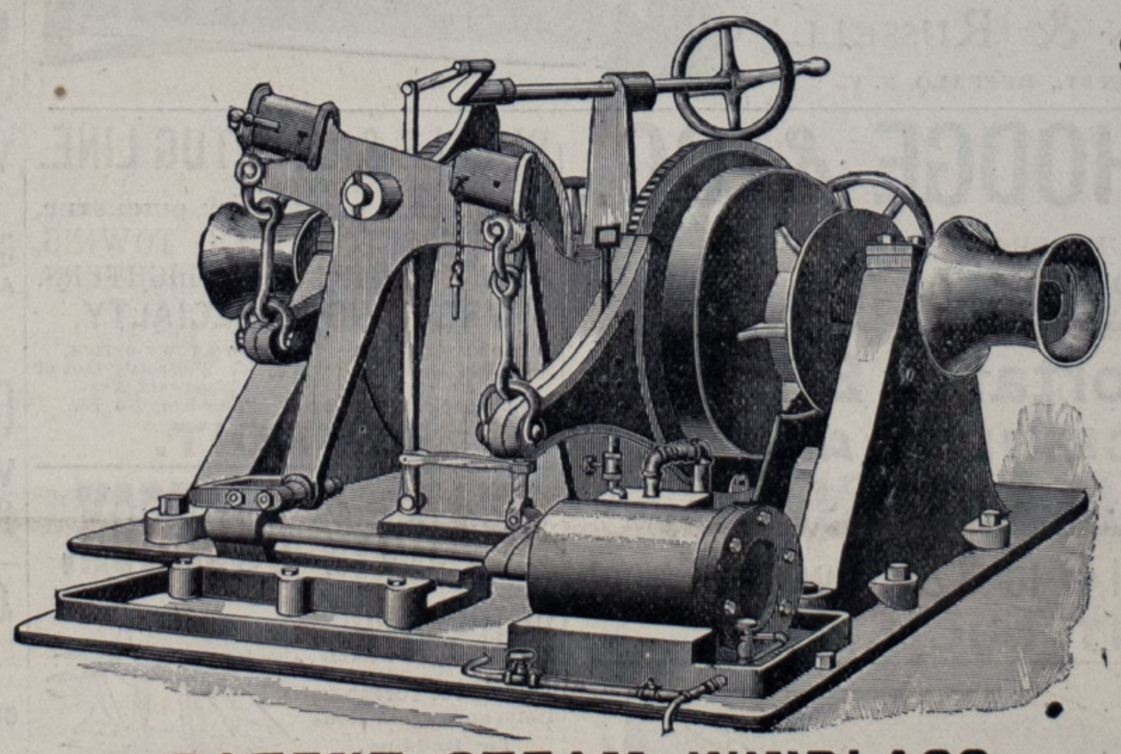

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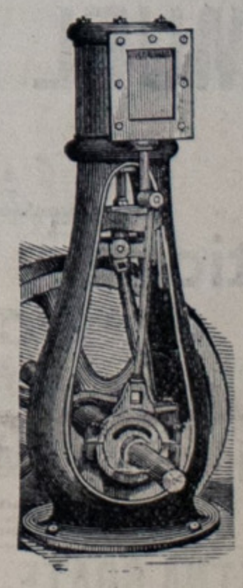

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